

**ABSTRACT OF THE INVENTION**

A method is described for measuring the jitter experienced by an application's network traffic. The measurement is based solely on packets sent or received by the application itself. The method does not alter the application's packets, in particular, it  
5 does not add a timestamp to the packets before they are sent. Instead, it creates a table that stores unique identifiers of the application's packets along with the time the packets are sent. On the receiving computer, a similar table is created that stores the unique packet identifiers along with the time the packets are received. Records of sent packets are associated with records of received packets so that the time a packet was sent can be  
10 compared to the time the same packet was received. The resulting data are processed to calculate network jitter and packet loss ratios.

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